

AMENDMENTS TO THE CLAIMS

1. (ORIGINAL) A plasma switched electroluminescent display comprising:
an electroluminescent part including a cathode layer, an electroluminescent layer
on the cathode layer, and an anode layer on the electroluminescent layer;
a first power supply unit connected electrically to the anode layer and disconnected
electrically to the cathode layer so as to supply the electroluminescent layer with a first
power;
a plasma generating part generating a plasma wherein the plasma becomes
contacted with the cathode layer; and
a second power supply unit generating the plasma by supplying the plasma
generating part with a second power,
wherein the cathode layer is connected electrically to the first power supply unit
through the plasma.

2. (ORIGINAL) The plasma switched electroluminescent display of claim 1,
further comprising an address electrode installed between the plasma generating part and
the first power supply unit so as to connect the cathode layer electrically to the first power
supply unit through the plasma.

3. (ORIGINAL) The plasma switched electroluminescent display of claim 2, wherein the first power is applied to the cathode layer by the plasma via the address electrode.

4. (ORIGINAL) The plasma switched electroluminescent display of claim 1, wherein the cathode layer is a floating electrode.

5. (CURRENTLY AMENDED) The plasma switched electroluminescent display of claim 1, wherein the electroluminescent layer is ~~formed selectively one~~ selected from the group consisting of high molecular organic electroluminescent material, low molecular electroluminescent material using fluorescence, and low molecular electroluminescent material using phosphorescence.

6. (CURRENTLY AMENDED) A plasma switched organic electroluminescent display comprising:

a lower plate comprising:

a first substrate;

a plurality of sustain electrodes arranged on the first substrate in parallel with each other so as to construct a plurality of sustain electrode pairs wherein each of the sustain electrode pairs comprises a pair of the sustain electrodes adjacent to each other;

a dielectric layer on the first substrate including the sustain electrodes; and

a plurality of barrier ribs formed on the dielectric layer to define a plurality of pixel areas constructing a plurality of rows and columns so that each of the sustain electrode pairs is placed in the corresponding row or column; and

an upper plate comprising:

a second substrate;

a plurality of address electrodes arranged on the second substrate so as to leave a predetermined interval each other wherein the address electrodes cross the sustain electrodes at right **angle angles**;

a plurality of anode layers arranged on the second substrate so as to be placed next to the address electrodes in the pixel areas, **respectively**;

a plurality of inner insulating/separating layers formed on the second substrate, each of the inner insulating/separating layers having an address electrode opening exposing the corresponding address electrode and an anode opening exposing the corresponding anode;

a plurality of electroluminescent layers formed on the inner insulating/separating layers in the pixel areas, **respectively**, each of the electroluminescent layers contacted with the corresponding anode layer exposed through the anode opening; and

a plurality of cathode layers formed on the electroluminescent layers, **respectively**.

7. (ORIGINAL) The plasma switched organic electroluminescent display of claim 6, further comprising a protecting layer formed of MgO on the dielectric layer.

8. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 6, wherein the anode layers are ~~formed selectively one~~ selected from the group consisting of ITO (indium tin oxide) and IZO (indium zinc oxide).

9. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 6, wherein each of the anode openings extends to edges of a top of the corresponding anode layer so as to increase ~~a contrast ratio~~ an aperture ratio of the display.

10. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 6, wherein the electroluminescent layers are formed by ~~one~~ a means selected from the group consisting of screen print, ink-jet print, dry film laminate, and vacuum evaporation using a shadow mask.

11. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 6, further comprising:

a plurality of hole injection layers and a plurality of hole transport layers stacked in order between the anode layers and the electroluminescent layers, ~~respectively~~;

a plurality of hole blocking layers formed on the electroluminescent layers, ~~respectively~~; and

a plurality of electron transport layers formed on the hole blocking layers, ~~respectively~~.

12. (CURRENTLY AMENDED) A plasma switched organic electroluminescent display comprising:

a lower plate comprising:

a first substrate;

a plurality of sustain electrodes arranged on the first substrate in parallel with each other so as to construct a plurality of sustain electrode pairs wherein each of the sustain electrode pairs comprises a pair of the sustain electrodes adjacent to each other;

a dielectric layer on the first substrate including the sustain electrodes;

a plurality of barrier ribs formed on the dielectric layer to define a plurality of pixel areas constructing a plurality of rows and columns so that

each of the sustain electrode pairs is placed in the corresponding row or column;

a protecting layer covering the dielectric layer exposed between the barrier ribs; and

a plurality of exposed electrodes running in parallel with each other on portions of the protecting layer corresponding to middle parts of the sustain electrode pairs, ~~respectively~~; and

an upper plate comprising:

a second substrate;

a plurality of address electrodes arranged on the second substrate so as to leave a predetermined interval each other wherein the address electrodes cross the sustain electrodes at right ~~angle~~ angles;

a plurality of anode layers arranged on the second substrate so as to be placed next to the address electrodes in the pixel areas, ~~respectively~~;

a plurality of inner insulating/separating layers formed on the second substrate, each of the inner insulating/separating layers having an anode opening exposing the corresponding anode layer;

a plurality of electroluminescent layers formed on the inner insulating/separating layers in the pixel areas, ~~respectively~~, each of the electroluminescent layers contacted with the corresponding anode layer exposed through the anode opening; and

a plurality of cathode layers formed on the electroluminescent layers, ~~respectively~~.

13. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 12, wherein each of the anode openings extends to edges of a top of the corresponding anode layer so as to increase ~~a contrast ratio~~ an aperture ratio of the display.

14. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 12, wherein the electroluminescent layers are formed by ~~one~~ a means selected from the group consisting of screen print, ink-jet print, dry film laminate, and vacuum evaporation using a shadow mask.

15. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 12, further comprising:

a plurality of hole injection layers and a plurality of hole transport layers stacked in order between the anode layers and the electroluminescent layers, ~~respectively~~;

a plurality of hole blocking layers formed on the electroluminescent layers, ~~respectively~~; and

a plurality of electron transport layers formed on the hole blocking layers, ~~respectively~~.

16. (CURRENTLY AMENDED) A plasma switched organic electroluminescent display comprising:

a lower plate comprising:

a first substrate;

a plurality of sustain electrodes arranged on the first substrate in parallel with each other so as to construct a plurality of sustain electrode pairs wherein each of the sustain electrode pairs comprises a pair of the sustain electrodes adjacent to each other;

a dielectric layer on the first substrate including the sustain electrodes; and

a plurality of barrier ribs formed on the dielectric layer to define a plurality of pixel areas constructing a plurality of rows and columns so that each of the sustain electrode pairs is placed in the corresponding row or column; and

an upper plate comprising:

a second substrate;

a plurality of address electrodes arranged on the second substrate so as to leave a predetermined interval each other wherein the address electrodes cross the sustain electrodes at right ~~angle~~ angles;

a plurality of exposed electrodes in parallel with each other on the second substrate between the address electrodes, ~~respectively~~;

a plurality of anode layers arranged on the second substrate so as to be placed between the address electrodes and the exposed electrodes in the pixel areas, ~~respectively~~;

a plurality of inner insulating/separating layers formed on the second substrate including the ~~anode layers~~ address electrodes and the anode layers except the exposed electrodes, each of the inner insulating/separating layers having an anode opening exposing the corresponding anode layer;

a plurality of electroluminescent layers formed on the inner insulating/separating layers in the pixel areas, ~~respectively~~, each of the electroluminescent layers contacted with the corresponding anode layer exposed through the anode opening; and

a plurality of cathode layers formed on the electroluminescent layers, ~~respectively~~.

17. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 16, wherein each of the anode openings extends to edges of a top of the corresponding anode layer so as to increase ~~a contrast ratio~~ an aperture ratio of the display.

18. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 16, wherein the electroluminescent layers are formed by ~~one~~ a means selected from the group consisting of screen print, ink-jet print, dry film laminate, and vacuum evaporation using a shadow mask.

19. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 16, further comprising a plurality of hole transport layers inserted between the anode layers and the electroluminescent layers, ~~respectively~~.

20. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 19, further comprising a plurality of hole injection layers inserted between the anode layers and the hole transport layers, ~~respectively~~.

21. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 16, further comprising a plurality of electron transport layers inserted between the electroluminescent layers and the cathode layers, ~~respectively~~.

22. (CURRENTLY AMENDED) The plasma switched organic electroluminescent display of claim 21, further comprising a plurality of hole blocking layers inserted between the electroluminescent layers and the electron transport layers, ~~respectively~~.

23. (ORIGINAL) The plasma switched organic electroluminescent display of claim 16, further comprising a protecting layer formed of MgO on the dielectric layer.